

REMARKS

Claims 10-18 are now pending in this application. Claims 10 and 14 are independent. Claims 10-18 have been added, and claim 6 has been canceled by this Amendment.

No new matter is involved with any claim amendment or new claim, as support may be found throughout the originally-filed disclosure.

Amendments to the Specification

The specification has been amended to correct various grammatical errors, and to remove reference to specific claim numbers therein. Entry of the specification amendments is requested, as no new matter is involved.

Unpatentability Rejection over Makoto et al. in View of Hiraoka et al.

Withdrawal of the rejection of claim 6 under 35 U.S.C. §103(a) as allegedly being unpatentable over Makoto et al. (JP 7035455) (“Makoto”) in view of Tomasov et al. (US 5,150,584) (“Tomasov”) and in further view of Hiraoka et al. (US 5,970,727) (“Hiraoka”) is requested. Claim 6 has been canceled, thus rendering its rejection moot.

New Claims

New claims 10-18 have been drafted to further define that which Applicants are entitled to claim, and to distinguish over the previously-applied art.

Discussion of Applicant's Disclosure

By way of background, various embodiments and aspects of Applicants' disclosure is directed to a refrigerator which has a refrigerating cycle sequentially connecting a compressor, a condenser, a drawing mechanism, an evaporator, an accumulator, an inlet temperature sensor and an outlet temperature sensor for detecting the temperatures of the inlet and outlet of the evaporator, and a cooling fan for cooling the compressor. When the difference between the

temperature detected by the inlet temperature sensor and the temperature detected by the outlet temperature sensor is a predetermined value or more, the cooling fan is stopped.

In one or more aspects, Applicants' refrigerator has initial high cooling performance after turning on power, even if a hydrocarbon cooling medium having a small charged amount and which is easily soluble in a refrigeration machine oil is used. In one aspect, Applicants' disclosed refrigerator prevents defective cooling due to the sleeping of a hydrocarbon refrigerant staying in a compressor and a condenser.

Discussion of New Independent Claims 10 and 14

The previously-applied art, neither alone or in combination, discloses, teaches, or suggests a refrigerator system using a hydrocarbon-based cooling medium, wherein the system includes, *inter alia*, "...at least one evaporator...containing the hydrocarbon-based cooling medium and a machine oil therein...and a controller configured to...operate said compressor at a first speed greater than an operational speed thereof while maintaining said cooling fan in an OFF state; operate said compressor at the operational speed after said compressor has operated at the first speed for a predetermined period of time, wherein operating said compressor at the first speed for the predetermined period of time heats the hydrocarbon-based cooling medium at least to a temperature that reduces an amount of the hydrocarbon-based cooling medium dissolved in the machine oil at least to a level that reduces a sleeping phenomenon of the hydrocarbon-based cooling medium; and thereafter, control an ON state of said cooling fan," as recited in newly-presented independent claim 10.

In addition, the previously-applied art, neither alone or in combination, discloses, teaches, or suggests a refrigerator system using a hydrocarbon-based cooling medium, wherein the system includes, *inter alia*, "...at least one evaporator operatively...containing the hydrocarbon-based cooling medium and a machine oil therein...and a controller configured to...evaluate an air temperature of an environment in which the refrigerator system is arranged and, responsive to a determination that the air temperature is less than a first temperature, stop the cooling fan; and responsive to a determination that the air temperature is equal to or greater than the first temperature and that a temperature difference between an inlet and an outlet of said at least one evaporator is less than a predetermined value, start said cooling fan, wherein said control of the

ON/OFF state of said cooling fan operates to heat the hydrocarbon-based cooling medium at least to a temperature that reduces an amount of the hydrocarbon-based cooling medium dissolved in the machine oil at least to a level that reduces a sleeping phenomenon of the hydrocarbon-based cooling medium,” as recited in newly-presented independent claim 14.

Accordingly, consideration and allowance of newly-presented claims 10-18 are respectfully requested.

Conclusion

All rejections having been addressed, Applicant submits that each of pending claims 10-18 in the present application is in immediate condition for allowance. An early indication of the same would be appreciated.

In the event the Examiner believes that an interview would be helpful in resolving any outstanding issues in this case, the Undersigned Attorney is available at the telephone number indicated below.

Although no fees are believed to be due, for any fees that are due during the pendency of this application, please charge Deposit Account Number 03-3975 from which the Undersigned Attorney is authorized to draw. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

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Respectfully submitted,

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